

REMARKS

This is in response to the Final Office Action mailed on March 30, 2005. Claims 1-31 were pending in the application and the Examiner rejected all claims. Of the pending claims, claims 1, 19 and 25 are independent claims. The Examiner specifically rejected claims 1-4 and 25-28 under 35 U.S.C. §102(e) as being anticipated by Grefenstette U.S. Patent No. 6,289,304. The Examiner rejected independent claim 19 under 35 U.S.C. §103 over Grefenstette in view of Kudrolli et al. U.S. Patent No. 6,279,018.

The present invention actually generates multiple different compressed forms of an input text (multiple different compression options). Grefenstette does not do this. Grefenstette tags the input text and then generates only a single summary form of the input text based upon a user-selected application of rules. This is a fundamentally different type of system than the present invention.

More specifically, for instance, in the Example shown on page 39, line 18 of the present specification, the input text is from the example sentence shown in FIG. 3 and is "_ten_am". This can be represented in at least three different forms "_ten_am" and "_10am" and "10am". Each of these compression options is generated as shown. Of these various "compression options", one can be chosen as the final output compressed version of the text. See page 39, lines 17-25 of the present specification.

In contrast, Grefenstette marks each word in the text string with a part-of-speech (POS) and then generates a single summary based on rules indicating which parts of speech are to remain in the summary, and which parts of speech are to be removed. These are referred to as the "levels of reduction" and are listed on column 9, lines 49-59. However, only a single "level of reduction" is ever chosen and applied to the input

text, so only a single summary is generated for the input text. Specifically, Grefenstette states "one of a set of predefined levels may, when selected, be stored for use until another level is selected." Column 8, lines 35-36. Further, "based on the currently set reduction level, the annotations added into the text can be used by a reducing filter that decides which tokens should be retained and which removed. In effect, the reducing filter applies a selected POS based removal criterion." Column 8, lines 43-48. It is thus clear that Grefenstette teaches that a single reduction level is selected by the user and applied to input text. That reduction level provides, as an output, a single summary of the input text. There is no teaching, or suggestion, whatsoever, in Grefenstette that the input text is compressed in two or more different ways to obtain two or more different compressed forms for each portion of the input text.

Yet, that is explicitly what is claimed in the independent claims of the application. For instance, claim 1 specifically states "generating a plurality of compression options for each of a plurality of different portions of the body of text to compress the body of text based on a linguistic output." As stated above, one example set of the compression options for the portion of text "ten am" is: "_ten_am"; "_10am"; and "10am". This is neither taught nor suggested by Grefenstette. Claim 19 specifically claims a data structure that includes "a plurality of data fields, representing a plurality of compressed forms of the body of text." Again, Grefenstette neither teaches nor suggest any such data structure. Kudrolli does not remedy this deficiency in Grefenstette.

Finally, independent claim 25 specifically states "a compression form generator configured to generate a plurality of compressed forms of a portion of the body of text based on the linguistic analysis." Grefenstette simply neither teaches nor suggests generating a plurality of compressed forms for the input

text. Instead, Grefenstette teaches a user selected reduction level which is applied to the input text to generate a single summary for the input text.

For these reasons, Applicant submits that independent claims 1, 19 and 25 are allowable over Grefenstette, and requests that the Examiner reconsider and allow those claims. Applicant also submits that dependent claims 2-18, 20-24 and 26-31 are allowable by virtue of their dependence on allowable independent claims.

Applicant further submits that a number of the dependent claims are independently allowable. For instance, dependent claim 2 specifically states that each of the plurality of different portions of the body of text are subjected to different sets of compression rules to obtain the plurality of compression options. Again, since Grefenstette neither teaches nor suggests generating a plurality of compression options for a given input text, it cannot teach or suggest generating those plurality of compression options by applying different sets of compression rules to the different portions of input text.

Similarly, dependent claim 3 specifically states that the compression rules mentioned in claim 2 are applied to the input text in "a predetermined order such that the compression options reflect varying degrees of compression of a same portion of the body of text". Since Grefenstette only teaches selecting a pre-defined reduction level and applying that one level to the input text, it cannot teach or suggest generating multiple compression options for an input text wherein each of the different compression options represents a varying degree of compression of the input text.

Dependent claims 5-10, 21-24 and 30-31 further define generating compression attributes which are neither taught nor suggested by the references. In addition, claims 13-17 address

specifics of the short form attribute, symbol-sensitive attribute and URLs and emails, which are allowable as well.

Finally, dependent claim 18 specifically includes (as dependent from claim 11) that the linguistic analysis comprises a syntactic analysis and that the compression rules are applied based on the syntactic analysis. Claim 18 goes on to state that the syntactic analysis includes a tree having non-terminal nodes representing multi-word portions of the body of text and terminal nodes indicative of words in the body of text, and wherein both the non-terminal nodes and the terminal nodes are examined for application of compression rules.

In rejecting claim 18, the Examiner cited the Ueda reference. The cited text in Ueda states that each sentence is analyzed to obtain an analysis tree. A score is assigned to the tree based on how big the tree is. The tree is considered to be more important if it is bigger. For each high scoring tree, Ueda generates a sentence for the summary. Therefore, there is no teaching in Ueda or any of the other cited references that a plurality of different compression options are generated for an input text, or that different sets of compression rules are applied to generate the plurality of different compression options for the various portions of the input text, or that the linguistic analysis of the text represents a syntactic analysis tree or that in generating the compressed forms both the terminal and non-terminal nodes in the tree are considered when applying the compression rules. Thus, the Examiner has completely failed to cite references that teach or suggest the subject matter set out in dependent claim 18.

For these reasons, Applicant submits that independent claims 1, 19 and 25 are allowable over the references cited by the Examiner. Applicant further submits that dependent claims 2-18, 20-24 and 26-31 are allowable both by reason of their dependence on allowable independent claims, and because they are

independently allowable over the references cited by the Examiner. Applicant thus respectfully requests reconsideration and allowance of claims 1-31.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 

Joseph R. Kelly, Reg. No. 34,847
Suite 1600 - International Centre
900 Second Avenue South
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

JRK:slg